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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/632,514	08/01/2003	Andrew P. Ritter	AVX-202-CIP	4340
22827	7590	02/14/2005	EXAMINER	
DORITY & MANNING, P.A. POST OFFICE BOX 1449 GREENVILLE, SC 29602-1449			TALBOT, BRIAN K	
			ART UNIT	PAPER NUMBER
			1762	

DATE MAILED: 02/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/632,514

Applicant(s)

RITTER ET AL

Examiner

Brian K Talbot

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 November 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>12/10/04, 1/6/04, 2/5/04</u> | 6) <input type="checkbox"/> Other: _____ |

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1. The amendment filed 11/16/04 has been considered and entered. Claims 21-41 have been canceled. Claims 1-20 remain in the application.
2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claim Rejections - 35 USC § 102

3. Claims 1,3-5 and 8-11 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Maher (4,811,162) or McLoughlin et al. (6,232,144)

Maher (4,811,162) teaches capacitor end termination composition and method. The end termination layer can be applied by electroless plating of nickel from 30-50 minutes to produce a thickness of from 1-4 microns (col. 4, lines 9-17 and Figures).

McLoughlin et al. (6,232,144) teaches nickel barrier end termination and method. Nickel end termination can be applied by electroless plating from 15 minutes to 20 minutes to produce a thickness of from 1-3 microns. A platinum layer can be applied as a pretreatment step prior to the nickel plating (Figures and col. 3, line 1 – col. 4, line 60).

4. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any

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evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claim Rejections - 35 USC § 103

5. Claims 1-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tuzuki et al. (6,310,757) in combination with McElroy et al. (3,992,761).

Tuzuki et al. (6,310,757) teaches an electronic component having external electrodes and method of manufacturing. Tuzuki et al. (6,310,757) teaches manufacturing an electronic component with an activation treatment with palladium prior to electrolytic plating of nickel (abstract). A pretreatment step can be performed prior to the activation step to remove oxides from the conductive surfaces. Finally electrolytic plating is performed to form the electrodes (col. 3, lines 48-67). The plating time ranges from 10-30 minutes to form a thickness ranging from less than 1micron to 3 microns (see Table 1 and 2)

Tuzuki et al. (6,310,757) fails to teach electroless plating the external electrodes instead of electrolytic plating.

McElroy et al. (3,992,761) teaches making a multi-layer capacitor whereby external electrodes are formed by electroless plating of nickel or copper (Fig. 1 and col. 4, lines 44-49).

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Claims 2,6,7 and 12-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Maher (4,811,162) or McLoughlin et al. (6,232,144) in combination with Tuzuki et al. (6,310,757).

Maher (4,811,162) teaches capacitor end termination composition and method. The end termination layer can be applied by electroless plating of nickel from 30-50 minutes to produce a thickness of from 1-4 microns (col. 4, lines 9-17 and Figures).

McLoughlin et al. (6,232,144) teaches nickel barrier end termination and method. Nickel end termination can be applied by electroless plating from 15 minutes to 20 minutes to produce a thickness of from 1-3 microns. A platinum layer can be applied as a pretreatment step prior to the nickel plating (Figures and col. 3, line 1 – col. 4, line 60).

Maher (4,811,162) or McLoughlin et al. (6,232,144) fail to teach s contact time of less than 15 minutes and a cleaning step.

Tuzuki et al. (6,310,757) teaches a contact time of less than 10 minutes and a cleaning step prior to activation.

Therefore, it would have been obvious at the time the invention was made to have modified Maher (4,811,162) or McLoughlin et al. (6,232,144) to incorporate the coating time and pretreatment step as evidenced by Tuzuki et al. (6,310,757) with the expectation of achieving similar results.

Response to Amendment

6. Applicant's arguments filed 11/16/04 have been fully considered but they are not persuasive.

Applicant argued that the prior art fails to teach “directly” depositing the termination material on the electronic components.

Applicant's arguments are not commensurate in scope with the claims. The claims are not limited as argued. The claims as written do not exclude an intermediate coating prior to the electroless plating layer.

Applicant argued that the prior art fails to teach “entirely immersing” the electronic component in the electroless bath and not dipping.

The claims are not commensurate in scope with the claims. The claims are not limited as argued. The claims as written do not exclude a dipping step as the claim language does not recite “entirely immersing” as argued.

Applicant argued that the McElroy reference is fundamentally different from the invention.

The Examiner agrees in part. While the Examiner acknowledges some differences between the two references, the McElroy reference is utilized to show the conventionality of electroless plating of terminal electrodes and not for the reasons argued by Applicant.

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian K Talbot whose telephone number is (571) 272-1428. The examiner can normally be reached on Monday-Friday 6AM-3PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Shrive P Beck can be reached on (571) 272-1415. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Brian K Talbot
Primary Examiner
Art Unit 1762

BKT